



Bosvena

School **“At Bosvena School, we nurture healing, curiosity, and courage so every child can thrive, in learning, in relationships, and in life.”**



B- Bravery

E- Empathy

A- Aspirations

C- Communication

O- Opportunity

N- Nurture

Meaningful Math's Overview KS1-KS4

Key Stage 1	Key Stage 2	Key Stage 3	Key Stage 4
Number & Counting: <ol style="list-style-type: none"> Understand one-to-one correspondence. Count objects accurately in real situations. Understand "how many" when measuring or organising. Compare amounts (more/less/greater/fewer). Continue a count if interrupted. Read and understand numbers up to at least 100 in the environment. Order numbers in simple real contexts (e.g., biggest bill, smallest cost). Understand tens and ones to interpret numbers in real contexts (e.g., knowing 47 is more than 32). Read and understand numbers up to at least 100 in the environment (prices, doors, buses). Order real numbers (first in queue, biggest bill, smallest cost). 	Number & Place Value <ol style="list-style-type: none"> Read and understand larger numbers used in daily life (prices, bills, timetables). Understand place value up to thousands. Compare and order numbers for practical decision-making. Round numbers sensibly to estimate costs, totals or time. Use negative numbers in real contexts (temperature, financial balance changes). 	Number & Place Value <ol style="list-style-type: none"> Handle large numbers used in adult life (wages, bills, interest, measurements). Understand place value confidently (units → millions if needed). Estimate realistically ("Does this total make sense?"). Understand negative numbers in real practical situations: <ul style="list-style-type: none"> Profit/loss Elevation Temperature Bank balance 	Number & Place Value <p>Pupils should be able to:</p> <ol style="list-style-type: none"> Understand large numbers seen in adult life (salaries, annual bills, national statistics, data reports). Read and interpret numbers into the millions when needed. Work confidently with positive and negative values: <ul style="list-style-type: none"> Bank account balance going below zero Temperature changes Profit and loss Estimate answers to check if solutions are realistic ("Does this bill or answer make sense?").
Data & Statistics <ol style="list-style-type: none"> Understand that information can be collected and organised. Begin reading simple charts and tables from familiar contexts (e.g., class jobs, tally marks). 	Data & Statistics <ol style="list-style-type: none"> Read and interpret information from: <ul style="list-style-type: none"> Charts Tables Graphs Surveys Price comparisons Timetables Draw simple charts to communicate information clearly. Identify patterns or trends ("Which option is cheaper or increasing?"). Understand simple averages (mean/median/mode) in meaningful contexts. 	Data Handling & Statistics <ol style="list-style-type: none"> Read, interpret and compare: <ul style="list-style-type: none"> Reports Polls Pay breakdowns Fitness trackers Sports/business data Draw clear charts to communicate findings. Apply averages in real contexts (productivity, wages, progress monitoring). Identify when data is useful or misleading. 	Data Handling & Statistics <ol style="list-style-type: none"> Vital for adult decision-making: <ul style="list-style-type: none"> Read and interpret: <ul style="list-style-type: none"> Graphs Charts Tables Reports Bills Surveys News articles Employer or business data Draw charts to communicate information clearly. Understand averages (mean, median, mode) and when each is appropriate. Spot when data is misleading or biased, essential for: <ul style="list-style-type: none"> Media Advertising Public health messaging Political claims Workplace reporting
Addition & Subtraction <ol style="list-style-type: none"> Add small numbers in real contexts (e.g., two apples + one apple). Subtract in real situations (e.g., you had 10 biscuits and ate 3 how many left?). Understand that addition increases and subtraction decreases. Use efficient strategies (counting on, number bonds, using objects). Check an answer makes sense in real life. 	Addition & Subtraction <ol style="list-style-type: none"> Add and subtract multi-digit numbers for real-life reasons: <ul style="list-style-type: none"> Shopping totals Balancing pocket money or savings Calculating travel times Working out ingredients needed Use written and mental methods efficiently. Estimate and check answers make sense ("Is this realistic?"). Solve multi-step problems used in real decision-making. 	Calculations (Addition, Subtraction, Multiplication, Division) <ol style="list-style-type: none"> Carry out multi-step calculations needed for independent living, including: <ul style="list-style-type: none"> Total cost of weekly food shop Monthly spending vs income Comparing prices and offers Travel planning Splitting costs fairly Working with recipes or supplies Use: <ul style="list-style-type: none"> Mental methods Written methods 	Calculations (Addition, Subtraction, Multiplication, Division) <p>Real-world skill expectations:</p> <ol style="list-style-type: none"> Complete accurate multi-step calculations needed for independent living: <ul style="list-style-type: none"> Work out total monthly expenditure Compare mobile phone contracts Analyse shopping costs Budget for weeks and months Plan travel times Cost up furniture, paint, food, electricals Choose the most suitable method:

		<ul style="list-style-type: none"> - Calculators - Real-world tools and apps 12. Always check: <ul style="list-style-type: none"> • "Does this answer seem reasonable?" • "Is there a better way to work this out?" • "Can this be done more efficiently?" 	<ul style="list-style-type: none"> • Mental arithmetic • Written method • Calculator • Spreadsheet or app 15. Check answers and evaluate: <ul style="list-style-type: none"> • "Is this the best deal?" • "Can I afford this?" • "Does this number seem realistic?"
Multiplication & Division (Early Understanding)	Multiplication & Division	Ratio & Proportion	Ratio & Proportion
1. Share objects fairly (e.g., sharing toys or food between people). 2. Group items in equal amounts (e.g., packs of 6). 3. Notice repeated addition (e.g., $2 + 2 + 2$ is three groups of 2). 4. Understand simple halves and doubles (e.g., double the recipe, halve the sandwich).	5. Multiply and divide numbers confidently to: 6. Calculate total cost of multiple items 7. Decide if bulk buying is cheaper 8. Distribute items fairly 9. Work out distances, portions, or work shared 10. Know and use times tables because they massively speed up real calculations. 11. Understand remainders (e.g., "We need another box!"). 12. Use efficient strategies (mental, written, calculator, or practical).	1. Scale quantities accurately (half, double, triple etc.). 2. Understand "for every..." relationships in: 3. Recipes 4. Chemical/mechanical mixtures 5. Product reviews 6. Staffing ratios 7. Survey results 8. Work out unit prices to find better value (£/kg, £ per session, cost per mile, etc.). 9. Understand exchange rates when converting money.	10. Scale recipes, materials and ingredients (double, halve, scale up/down). 11. Decide best value by comparing unit costs (cost per kilogram, price per hour, price per mile). 12. Use ratio in workplace and vocational contexts: 13. Machine ratios 14. Staff-pupil proportions 15. Fuel mix 16. Construction plans 17. Understand exchange rates and how to calculate currency conversions when travelling or working abroad.
Fractions	Fractions, Decimals & Percentages	Fractions, Decimals & Percentages	Fractions, Decimals & Percentages
1. Understand $\frac{1}{2}$ and $\frac{1}{4}$ as real portions (food, shapes, folding paper). 2. Share items into equal parts. 3. Recognise that fractions mean equal splitting, not random cutting.	4. Understand common fractions ($\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{3}{4}$ etc.) as real portions of food, time, materials, money etc. 5. Convert between fractions, decimals and percentages for: <ul style="list-style-type: none"> • Discounts and sales • Tax • Bills • Savings • Recipes and measures 6. Understand simple equivalences (e.g., $0.5 = \frac{1}{2} = 50\%$). 7. Compare fractions and percentages to decide best value (e.g., which deal is the better offer?). 8. Add and subtract fractions when needed (e.g., time remaining, combining ingredients).	9. Convert between fractions, decimals and percentages confidently. 10. Work with them in real situations: <ul style="list-style-type: none"> • Discounts and sale prices • Interest and savings • Tax, bills, wage deductions • Proportion in recipes and instructions 11. Compare values to find best deals (e.g., 30% off vs "£6 off"). 12. Scale quantities accurately (cooking, DIY, construction, tasks at work).	13. Switch confidently between fractions, decimals and percentages when reading real-world information. 14. Calculate: <ul style="list-style-type: none"> o Tax and VAT o Wage deductions o Discounts and sale prices o Loan interest o Savings growth o Value for money 15. Use percentages to compare: <ul style="list-style-type: none"> o Bills o Interest rates o Fuel consumption o Job applications o Offers and promotions 16. Understand proportion in: <ul style="list-style-type: none"> o Recipes o Manufacturing o DIY mixtures o Multiplying or dividing workloads
Money	Money & Financial Understanding	Money and Probability	Financial Math's
1. Recognise coins and notes (not names recognition and value). 2. Understand that money has value and different amounts. 3. Combine coins to make a required amount. 4. Work out simple change. 5. Compare prices (cheaper, more expensive).	6. Huge life skill area. Pupils should be able to: Recognise and total coins/notes confidently. <ul style="list-style-type: none"> • Compare prices and offers. • Work out best value (two for £3 vs £1.80 each). • Calculate: • Discounts • Change • Budgeting • Weekly/monthly spending limits • Understand that money is finite and spending affects future choices. • Begin evaluating the cost of living realistically. 	7. Handle realistic financial tasks: <ul style="list-style-type: none"> - Weekly food budget - Online price comparison - Phone plans - Use simple financial planning tools (written or digital). Real-world application, not theory: 8. Understand risk and chance (likelihood something will happen). 9. Use probability in: <ul style="list-style-type: none"> - Safety decisions - Insurance - Medical decisions - Weather forecasting/ dressing - Business planning 	11. Understand key parts of adult finance: <ul style="list-style-type: none"> - Income, hourly pay, overtime, commission - Tax, National Insurance, pensions - Bills and subscriptions - Loans, credit cards, interest, mortgages 12. Manage realistic household budgets. 13. Analyse long-term costs and risks. 14. Use calculators or spreadsheets to track and compare.

		10. Make sensible, informed decisions based on likelihood, not luck.	
Time	Time	Algebra (But Only Real-Life Use)	Time & Scheduling
<ol style="list-style-type: none"> 1. Read time to the nearest hour and half hour. 2. Understand words for time (before, after, early, late, today, tomorrow, yesterday). 3. Know days of the week and daily sequences (morning, afternoon, evening). 4. Understand real durations (how long until lunch, how long something takes). 	<p>Daily functional skills:</p> <ol style="list-style-type: none"> 5. Read analogue and digital clocks. 6. Convert between units of time (seconds, minutes, hours, days, weeks etc.). 7. Calculate how long something takes. 8. Use timetables and schedules (buses, lessons, clubs). 9. Plan and organise time effectively: 10. What time do we need to leave? 11. How long until the appointment? 12. Do we have enough time? 	<p>No abstract theory, just the bits adults use:</p> <ol style="list-style-type: none"> 1. Represent unknown values ("what do we need to find?"). 2. Form simple equations from real problems (e.g., "If each ticket is £8..."). <p>Use algebra for:</p> <ol style="list-style-type: none"> 3. Budgeting formulas 4. Comparing phone or utility contracts 5. Distance = speed × time 6. Working out totals <p>Understand that letters just represent missing or changeable numbers.</p>	<p>Functional time skills include:</p> <ol style="list-style-type: none"> 13. Create and manage weekly or monthly schedules. 14. Plan realistic journey times using: <ul style="list-style-type: none"> o Timetables o Digital maps o Public transport information 15. Understand time zone differences when travelling or communicating globally. 16. Calculate working hours: <ul style="list-style-type: none"> o Shift patterns o Overtime o Break deductions o Total hours and pay
Measures	Measures	Measures	Measuring & Units
<ol style="list-style-type: none"> 1. Compare sizes (bigger/smaller, longer/shorter, heavier/lighter). 2. Measure informally using everyday objects (e.g., "how many blocks long?") 3. Measure accurately in real contexts: <ul style="list-style-type: none"> • Cooking • Packing • DIY • Travel • Sport and fitness 	<ol style="list-style-type: none"> 4. Start interpreting standard units when relevant (kg, cm, litres). 5. Estimate reasonably (e.g., you can't carry something weighing 20kg). 6. Choose the correct unit (cm, m, kg, litres). 7. Compare measurements sensibly. 8. Scale measurements up/down (double a recipe, halve a recipe). 	<ol style="list-style-type: none"> 9. Life skills needed: <ul style="list-style-type: none"> • Use appropriate units for: <ul style="list-style-type: none"> • Length (mm, cm, m, km) • Weight (g, kg) • Capacity (ml, litres) • Temperature (°C) • Convert units in real contexts: <ul style="list-style-type: none"> • Cooking • DIY • Travel • Fitness • Engineering & work • Calculate perimeter and area when: <ul style="list-style-type: none"> • Ordering carpet or flooring • Planning a garden • Measuring rooms • Buying materials (paint, fencing, turf) 	<ol style="list-style-type: none"> 10. Measure and convert units confidently: 11. Length (mm, cm, m, km) 12. Weight (g, kg) 13. Capacity (ml, litres) 14. Temperature (°C) <p>Use measurement to:</p> <ol style="list-style-type: none"> 15. Order materials (carpet, paint, fencing, flooring) 16. Cook accurately 17. Follow technical instructions 18. Plan interiors and DIY <p>Calculate area, perimeter and volume to make informed decisions like:</p> <ol style="list-style-type: none"> 19. "How much paint do I need?" 20. "How big does the shed need to be?" 21. "How many tiles are required?"
Position & Direction	Position & Direction	Position, Direction, Maps	Probability (Risk Awareness)
<ol style="list-style-type: none"> 1. Follow simple directions (left, right, forwards, backwards). 2. Understand positional language (in, under, next to, behind). 3. Use directions in maps, playground games, and daily routines. 	<ol style="list-style-type: none"> 4. Read and follow directions (left/right, degrees of turn, orientation). 5. Navigate maps, plans and digital mapping apps. 6. Understand coordinates (e.g., reading a grid reference). 7. Plot simple routes and travel plans. 	<p>Pupils should be able to:</p> <ol style="list-style-type: none"> 8. Use coordinates to read or create maps and plans. 9. Understand scale (1cm = 1km, etc.). 10. Navigate: <ul style="list-style-type: none"> • Transport systems • Online maps • Workplace building layouts • Event venues • Use bearings and precise directions when needed. 	<p>Practical probability includes:</p> <ol style="list-style-type: none"> 1. Understanding that some outcomes are more likely than others. 2. Use probability to make safe and informed judgments: <ul style="list-style-type: none"> • Weather and travel decisions • Insurance • Medical options • Gambling awareness • Business risk assessment • Recognise risk vs reward rather than relying on luck.
Patterns & Problem Solving	Patterns & Problem Solving	Problem Solving & Logical Thinking	Problem Solving & Logical Thinking



<ul style="list-style-type: none">• Spot and continue patterns (useful in organising, matching, sequences).• Use logical thinking to solve practical problems.• Try different approaches if something doesn't work the first time.	<ul style="list-style-type: none">• Break problems into logical steps.• Decide what information is useful.• Choose the best strategy (mental, written, calculator, hands-on).• Check if an answer is sensible.• Compare options and justify a choice. <p>Apply math's flexibly in:</p> <ul style="list-style-type: none">- Home life- Shopping- Travel- Cooking- Planning- Money management- Real-world job contexts	<p>Pupils should be able to:</p> <ul style="list-style-type: none">• Break down real problems into steps.• Identify what information is needed and what is irrelevant.• Choose the best method/tool (calculator, estimation, graph, written).• Evaluate options and justify choices.• Spot errors and correct them.• Apply reasoning to adult-life scenarios like:<ul style="list-style-type: none">○ "Which contract is more cost-effective?"○ "Is it cheaper to lease or buy?"○ "How long will this journey take?"○ "Do I have enough money left after bills?"	<ul style="list-style-type: none">• The most transferable skill of all:• Break down large problems into clear steps.• Identify relevant and irrelevant information.• Compare solutions and justify decisions.• Decide whether to:<ul style="list-style-type: none">• Estimate• Calculate• Approximate• Use a tool (calculator, spreadsheet, app)• Apply maths in messy, real-life situations where the information might not be neat or obvious.
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